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Destructive Behaviors

Civil-Military Relations and Sexual Assault; Bluhm, Brandi K

This thesis addresses the role of civil-military relations in regard to sexual assault prevention and response. Through official statistics, documents from the state of California and the Department of Defense, scholarly research, and reports from the media, this paper describes the experience of the victim as he or she navigates through either system. The comparison of the systems side by side reveals that, if the civilian and military communities work together to capitalize on learning from each other, real progress can occur in serving victims of sexual assault in both systems.

<http://hdl.handle.net/10945/50482>

Analyzing predictors of high opioid use in the U.S. Navy; Tam, Francis

This study analyzes data from a select group of active duty (AD) service members enrolled to the Puget Sound area Navy military treatment facilities (MTF) in order to develop a model that identifies the risk that opioid users will become high opioid users, as defined by Navy Bureau of Medicine and Surgery (BUMED). The analysis examines the relationship between the response variable—high opioid user—as a function of a number of explanatory variables, including patient age, deployment history, sources of prescription and medical diagnoses. Logistic regression and machine learning models are used for data analysis. The study concludes that a simple, executable model that consolidates the variables to two explanatory factors performs as well, if not better than, the more complicated machine learning models.

<http://hdl.handle.net/10945/50489>

Training and Education

Measuring the impact of motivation on achievement and course completion rates in MarineNet distance education

This research applies the learning theory of human motivation to archival MarineNet data to determine if motivation factors impact academic performance and course completion. To test this theory, archival data from the MarineNet was analyzed. MarineNet courses were divided into five categories based on the type of extrinsic or intrinsic motivation required for enrollment. The exam scores, failure rates, and completion rates were then calculated for each course category. The results indicate that exam scores and failure rates follow the expected trend in the literature on motivation. The results for completion rates oppose the existing literature. The results demonstrate the similarities and dissimilarities that exist between civilian

and Marine Corps DE programs as well as the gap in knowledge on human learning within the Marine Corps. Several recommendations are made for bridging the gap.

<http://hdl.handle.net/10945/50582>

Force Management

The Carrier Strike Group: examining approaches to forward presence; Elliott, Christopher

The current carrier operating concept has resulted in unprecedented deployment lengths, shorter home-cycles and increasing strain on crew members and their families. By examining the Carrier Strike Group (CSG) deployment models and the various techniques for optimizing forward presence, a more efficient approach may be developed. This thesis answers the following question: How will the carrier's ability to protect U.S. national interests through a global strategy centered on forward presence and flexible response be accomplished in the future? The goal is to maximize forward presence based on current and forecast ship-building budgets and resources by identifying the CSG's utility and role in forward presence while assessing various techniques.

<http://hdl.handle.net/10945/50535>

An exploratory analysis of projected Navy officer inventory strength using data farming; Bazalaki, Peter

This study utilizes applications of data farming to OSAM to simulate Unrestricted Line Officer (URL) inventory over a seven-year period. Additionally, the research utilizes applications of Design of Experiments (DOE) to project Surface Warfare Officer (SWO) inventory across a variety of assumptions, including a proposed Enhanced Probationary Officer Continuation and Re-designation (EPOCR) policy. Analysis finds that current policy will reduce FY2016 URL inventory by 8% over a seven-year period, and over-execute SWO inventory authorizations by 40%. We find that EPOCR reduces operating strength deviation (OSD) in total SWO inventory strength by 12% by FY2022. Additionally, implementing a low accession plan and a high transfer plan is the most robust in correcting OSD. When implemented correctly, EPOCR has the potential to decrease OSD to modest levels with minimal risk of under-execution.

<http://hdl.handle.net/10945/50586>

Recruiting

Estimating the Depth of the Navy's Recruiting Market: Monaghan, Emilie

This research develops a statistical model for predicting the number of leads, as an indicator of market depth that a ZIP code will produce for Navy Recruiting Command (NRC). The U.S. Navy recruits from all over the country, using previous accessions in a recruiting district to assign recruiters and goals. This research develops statistical models to determine the key drivers of the number of leads at the ZIP code level. This research develops a Poisson regression model to predict the number of leads using factors such

as IRS-estimated population size and five cluster membership factors constructed from publicly available data sources. We recommend that NRC make use of the Poisson regression model in order to determine high-yield ZIP codes for market depth.

<http://hdl.handle.net/10945/50598>

Resilience

Social networks and high healthcare utilization: building resilience through analysis; Baker, Michael D

This thesis studies the origins of human connection and presents the science of social network analysis to demonstrate how interconnected relationships influence the well-being of networked individuals. The findings indicate that the quality of an individual's social network can have a positive or negative effect on the individual's health. Those who are socially isolated in their community often have difficulty managing complex health conditions and navigating the fractured national healthcare system. Deficits in community healthcare and social support networks cause these individuals to frequently utilize expensive and finite public safety and hospital emergency department resources for primary healthcare services. This research presents four recommendations to promote improved healthcare system navigation for high healthcare utilizers by not only understanding the patients' social networks, but also the healthcare provider network.

<http://hdl.handle.net/10945/50564>